

WHAT IS CLAIMED IS:

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1. A common buffer memory control apparatus controlling a common buffer memory which is used to store message data items each of which is divided into a plurality of cells based on an asynchronous transfer mode, said apparatus comprising:

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first management means for managing whether each of blocks into which said common buffer memory divided is free or used;

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block selecting means for selecting a block of said common buffer memory which is free based on information obtained by said first management means; and

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cell writing control means for controlling a write operation for a single message data item so that the respective cells of the single message data item are written in the block, selected by said block selecting means, of said common buffer memory.

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2. The common buffer memory control apparatus as claimed in claim 1, wherein said first management means comprises:

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a free block management table having areas each of which corresponds to one of the blocks of said common buffer memory, each of the areas of said free block management table storing information indicating whether a corresponding one of the blocks of said common buffer memory is free or used, wherein said block selecting means selects, with

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free block management means.

common buffer management means defined in claim 2, comprises:

block searching means;

management table indicating that a block is free wherein the block is identified by said free block number.

common buffer management means defined in claim 1, comprises:

management means;

of the blocks of the common buffer;

specifying means;

ion obtained by the management means;

an address in the management means even when the message data is stored in the single management addresses specified by the management means.

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address specifying means for specifying, based on information obtained by said second management means, an address in the block selected by said block selecting means every time one of cells of the single message data item is received, so that the cells of the single message data item are written at addresses specified by said address specifying means.

5. The common buffer memory control apparatus as claimed in claim 4, wherein second management means comprises:

5 a table having areas each of which corresponds to one of the blocks of said common buffer memory, each of the areas storing an address at which the next cell should be written, the address in each of the areas of said table being updated every time a cell is written in a
10 corresponding block of said common buffer memory.

15 6. The common buffer memory control apparatus as claimed in claim 1, wherein a number of blocks of said common buffer memory and a length of each of the blocks are set at values corresponding to data supplied from an external input device.

20 7. The common buffer memory control apparatus as claimed in claim 1, wherein a length of each of the blocks of said common buffer memory is controlled based on information about an amount of information of the message data extracted from a cell.

25 8. The common buffer memory control apparatus as claimed in claim 7, wherein, if the amount of information of the message data actually written in the block is less than the controlled
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The common buffer claimed in claim 1 means management means which said common buffer means has cell positioned so that said cell corresponds to use of the control means extracted from the message obtained by said user operation so that each of the messages corresponding to use of the control means is extracted from said common buffer.

The common buffer claimed in claim 2 means comprises: a user management table which corresponds to one of the messages, each of the messages is an information extracted from the message which has been written in the common buffer memory, the control means controls the user management table to said user management means.

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a user management table having areas each of which corresponds to one of the blocks of said common buffer, each of the areas storing the user identification information extracted from the head cell which has been written in a corresponding block of said common buffer memory, wherein said cell writing control means controls the write operation with reference to said user management table.

[illegible]